SURREBUTTAL TESTIMONY AND EXHIBIT OF

GLENN WATKINS

ON BEHALF OF

THE SOUTH CAROLINA OFFICE OF REGULATORY STAFF

DOCKET NO. 2021-324-WS

Q. PLEASE STATE YOUR NAME, BUSINESS ADDRESS, AND OCCUPATION.

A. My name is Glenn A. Watkins. My business address is 6377 Mattawan Trail, Mechanicsville, Virginia 23116. I am President and Senior Economist of Technical Associates, Inc., which is an economic research and consulting firm with offices in the Richmond, Virginia area.

Q. HAVE YOU PREVIOUSLY PRE-FILED TESTIMONY IN THIS DOCKET?

A. Yes. I pre-filed direct testimony on behalf of ORS on February 24, 2022.

Q. WHAT IS THE PURPOSE OF YOUR SURREBUTTAL TESTIMONY?

A. The purpose of this testimony is to respond to the rebuttal testimony of Company witness Charles Loy on issues concerning class cost allocations and rate design.

Q. DOES THE COMPANY GENERALLY AGREE WITH YOUR CLASS COST OF SERVICE ANALYSES?

A. Yes. With the exception of one immaterial difference, Witness Loy states on page 2 of his rebuttal testimony that "KIU does not have concerns with the other adjustments related to CCOSS made by ORS."

Q. PLEASE EXPLAIN THE ONE DIFFERENCE OF OPINION WITNESS LOY HAS WITH REGARD TO YOUR WATER CLASS COST OF SERVICE STUDY ("CCOSS").

A. Witness Loy observed that one of the adjustments I made to his CCOSS relates to the elimination of disallowed plant. On page 2 of his rebuttal testimony, Witness Loy claims that my adjustment removes this disallowed plant twice which resulted in a double-counting of this adjustment. According to Witness Loy, his "per books" amount does indeed include the disallowed plant, however, his "as adjusted" amount removes this disallowed plant. This is because he made the adjustment for the disallowed plant in his proforma adjustments.

Specifically, Witness Loy's per books total water gross plant is $33,635,021. He then added $3,637,653 of proforma adjustments to obtain an "as adjusted" gross plant amount of $37,272,674. Witness Loy's as adjusted water gross plant compares to my as adjusted water gross plant of $36,381,014, or a difference of $891,660.

With regard to the Company's proforma water gross plant adjustments, the Company's rate application model includes the following proforma additions and retirements:

Structures & Improvements	$97,888
Pumping Equipment	$69,914
Other Plant & Misc. Equipment	$1,050
Mains	$1,841,078
Meters & Installations	$1,681,394
Meter Retirements	-$109,391
Total Additions & Retirements	$3,581,933

As can be seen above, Witness Loy's proforma adjustment actually increased KIU's per books water gross plant amount more than the Company's proforma adjustment within its rate Application; i.e., Witness Loy's CCOSS proforma adjustment was $3,637,653 as compared to the Company's proforma adjustment of $3,581,933 within its revenue

requirement rate application model. Therefore, it is not possible that he then excluded an additional $891,660 within his "as adjusted" proforma gross plant amount.

Q. DID YOU ATTEMPT TO RESOLVE THIS ISSUE WITH THE COMPANY?

A. Yes. On Thursday, March 17, 2022, I had an informal discovery conference call (Microsoft Teams meeting) with the Company related to this issue. During the meeting, I provided a spreadsheet directly from the Company's Trial Balance and explained the above discrepancy in Witness Loy's as adjusted gross plant amount. After a thorough discussion, the Company indicated that it would investigate the issue and respond back to ORS. As of the writing of this surrebuttal testimony, KIU has not responded with the results of its investigation.

Q. NOTWITHSTANDING YOUR CORRECTION TO WITNESS LOY'S REBUTTAL TESTIMONY, DO YOU AGREE WITH HIM THAT THIS DIFFERENCE IN THE OVERALL ASSIGNMENT OF WATER COST RESPONSIBILITY IS RELATIVELY IMMATERIAL?

A. Yes.

Q. ON PAGE 2 OF HIS REBUTTAL TESTIMONY, WITNESS LOY POSES THE FOLLOWING QUESTION: "DO YOU AGREE WITH MR. WATKINS' STATEMENT THAT THE ALLOCATION OF O&M AND DEPRECIATION EXPENSES BASED ON CORRESPONDING PLANT AMOUNTS REPRESENT AN IMPLICIT ACCEPTANCE OF THE USE OF RATE OF RETURN METHODOLOGY?" IS THE PREMISE OF THIS QUESTION FACTUALLY, CORRECT?

A. No. Witness Loy has taken my Direct Testimony out of context and has not accurately characterized my testimony. In his response to this question, Witness Loy refers to my Direct Testimony on page 11, lines 8 through 10. The statement I made is:

> As is typical in virtually all utility CCOSS, Witness Loy classified and allocated many (if not most) Operations and Maintenance ("O&M") and Depreciation expenses based on corresponding plant amounts. Therefore, Witness Loy implicitly calculated each class's rate base within his water and sewer CCOSS.

As can be observed from the statement in my direct testimony, I did not assert or imply that the Company accepted the use of the rate of return methodology for ratemaking. Rather, I observed that he allocated many (if not most) O&M and Depreciation expenses based on corresponding plant amounts -- nothing more, nothing less.

Q. ON PAGE 3 OF HIS REBUTTAL TESTIMONY, WITNESS LOY CLAIMS THAT MAINTAINING A SUFFICIENT LEVEL OF FIXED REVENUE GIVES THE COMPANY A REASONABLE OPPORTUNITY TO RECOVER ITS COST OF SERVICE BECAUSE "VARIABLE COSTS, THOSE THAT ARE INCURRED AS WATER IS CONSUMED, TYPICALLY MAKE UP A NEGLIGIBLE AMOUNT IN PROPORTION TO THE TOTAL REVENUE REQUIREMENT." IS THIS STATEMENT AND CHARACTERIZATION TRUE FOR KIU?

A. No. While Witness Loy asserts that variable costs typically make up a "negligible" amount of a company's revenue requirement, this does not apply to KIU. Although KIU incurs several expenses that are semi-fixed and semi-variable in nature (i.e., do not vary 100% based on usage but are not totally fixed either),[1] at a minimum, the Company's Purchased Water, Purchased Power, and Chemicals expenses are 100% variable and total

[1] Examples of semi-fixed/semi-variable expenses include: Regulatory Commission Expenses; Bad Debts; Miscellaneous Expenses; Regulatory Assessments; and, Materials & Supplies.

$3.627 million.[2] ORS determined that KIU's total water revenue requirement is $7.671 million. As a result, at least 47% of KIU's expenses ($3.627 million divided by $7.671 million) are variable in nature. As such, it not accurate to claim that KIU's variable costs are "negligible."

Q. IS THERE AN OVERARCHING THEME IN WITNESS LOY'S REBUTTAL TESTIMONY CONCERNING A PROPER RATE DESIGN FOR KIU?

A. Yes. On pages 4 through 6 of Rebuttal Testimony, Witness Loy opines that proper rate design dictates that fixed costs should be recovered from non-avoidable fixed charges.

Q. DO YOU AGREE WITH WITNESS LOY'S OPINION IN THIS REGARD?

A. No. As a practical matter, Witness Loy's assertion is that proper pricing requires the establishment of KIU's rate structure as if it were a governmental taxing agency wherein revenue recovery is guaranteed. Under this scenario, there would be virtually no risk to KIU. To illustrate, if fixed costs were recovered from non-avoidable fixed monthly charges wherein only variable costs (those costs that vary directly with the amount of water consumed) are recovered from variable usage charges, the Company would confront no risk of revenue collection. However, such a regulatory and pricing concept is not in the manner in which investor-owned monopoly utilities are regulated. That is, it is well-established that a utility should be afforded the reasonable "opportunity" to recover its total cost of providing service and to earn a reasonable return, but there is not a guarantee of such revenue recovery.

Witness Loy argues that a proper pricing structure is one in which there is guaranteed recovery of fixed costs. Under such a scenario, KIU's risks are nonexistent. It

[2] Purchased Water - $3.485 million, Purchased Power - $0.140 million, and Chemicals - $0.002 million.

is a well-accepted principle that a company's required cost of capital and rate of return are directly correlated to the risks confronted by the company. To accept Witness Loy's theory, one must also recognize that the risk associated with KIU's operations would be so negligible that the authorized rate of return should be no more than its cost of debt. Indeed, this Commission (as well as virtually every other regulatory commission) recognizes risk associated with the "opportunity" to recover total costs wherein the authorized rate of return on equity is greater than the cost of debt.

Q. ARE THERE THEORETICAL AND PUBLIC POLICY REASONS THAT CONTRADICT WITNESS LOY'S OPINION THAT FIXED COSTS SHOULD BE RECOVERED FROM NON-AVOIDABLE FIXED CHARGES?

A. Yes. It is often said that regulation should serve as a surrogate to competition to the largest extent possible.[3] Indeed, Witness Loy's assertion that KIU's sunk investment costs (fixed costs) should all be recovered in fixed charges is at odds with the pricing structures that predominate in competitive markets and is contrary to effective conservation efforts.

Competitive market-based prices are generally structured based on usage; i.e. volume-based pricing. For example, an oil refinery costs well over a billion dollars to build such that its cost structure is largely comprised of sunk, or fixed, costs, but these costs are recovered one gallon at a time.

Q. PLEASE EXPLAIN HOW THE PRACTICE OF COMPETITIVE PRICING SHOULD BE APPLIED TO REGULATED PUBLIC UTILITIES SUCH AS KIU.

[3] James C. Bonbright, et al., *Principles of Public Utility Rates*, p. 141 (Second Edition, 1988).

A. Due to KIU's investment in system infrastructure, there is no debate that many of its short-run costs are sunk, or fixed, in nature. However, as a result of the variable pricing structures that predominate in competitive markets, those that receive more benefits pay more in total than those who receive fewer benefits. Regarding water and sewer usage, the level of water consumed, and level of wastewater treated is the best and most direct indicator of benefits received. Thus, volumetric pricing promotes the fairest pricing mechanism to customers and to the utility.

The above philosophy has consistently been embraced and applied by economists, regulators, and policy makers for generations. For example, consider utility industry pricing in the 1800s, when the industry was in its infancy. Customers paid a fixed monthly fee and consumed as much of the utility commodity/service as they desired (usually water). It soon became apparent that this fixed monthly fee rate schedule was inefficient and unfair. Utilities soon began metering their commodity/service and charging only for the amount actually consumed. In this way, consumers receiving more benefits from the utility paid more, in total, for the utility service because they used more of the commodity.

Q. IS THE UTILITY INDUSTRY UNIQUE IN ITS COST STRUCTURES, WHICH ARE COMPRISED LARGELY OF FIXED COSTS IN THE SHORT-RUN?

A. No. Most manufacturing and transportation industries are comprised of cost structures predominated with "fixed" costs. These fixed costs are primarily comprised of investments in plant and equipment. Virtually every capital-intensive industry is faced with a high percentage of so-called fixed costs in the short run. Prices for competitive products and services in these capital-intensive industries are invariably established on a volumetric basis, including those that were once regulated, e.g., motor transportation,

airline travel, and rail service.

Accordingly, Witness Loy's assertion that KIU's fixed costs should be recovered through fixed monthly charges is at odds with accepted, market-driven industry practices in competitive industries, and in my opinion, is simply incorrect and not sound policy. Those customers who conserve or are otherwise more efficient, or those who use less water/sewer for any reason, should pay less than those who use more water or sewer. Stated even more simply, customers requiring more of KIU's products and services should pay more than customers who use less of these products and services.

Q. ARE HIGH FIXED SERVICE CHARGE RATE STRUCTURES CONTRARY TO EFFECTIVE CONSERVATION EFFORTS?

A. Yes. High fixed charge rate structures actually promote additional consumption because a consumer's price of incremental consumption is less than what it would be under an efficient price structure. A clear example of this principle is exhibited in the natural gas transmission pipeline industry. As discussed in its well-known Order 636, FERC's adoption of a "Straight Fixed Variable" ("SFV") pricing method[4] was a result of national policy (primarily that of Congress) to encourage increased use of domestic natural gas by promoting additional interruptible (and incremental firm) gas usage. FERC's SFV pricing mechanism greatly reduced the price of incremental (additional) natural gas consumption. This resulted in significantly increasing the demand for, and use of, natural gas in the United States after Order 636 was issued in 1992.

FERC Order 636 had two primary goals. The first goal was to enhance gas competition at the wellhead by completely unbundling the merchant and transportation

[4] Under SFV pricing, customers pay a fixed charge that is designed to recover all of the utility's fixed costs.

functions of pipelines.[5] The second goal was to encourage the increased consumption of natural gas in the United States. In Order 636's introductory statement, FERC stated:

> The Commission's intent is to further "facilitat[e] the unimpeded operation of market forces to stimulate the production of natural gas... [and thereby] contribute to reducing our Nation's dependence upon imported oil…."[6]

With specific regard to the SFV rate design adopted in Order 636, FERC stated:

> Moreover, the Commission's adoption of SFV should maximize pipeline throughput over time by allowing gas to compete with alternate fuels on a timely basis as the prices of alternate fuels change. The Commission believes it is beyond doubt that it is in the national interest to promote the use of clean and abundant gas over alternate fuels such as foreign oil. SFV is the best method for doing that.[7]

Indeed, FERC's objective to increase natural gas consumption through the use of SFV rate design was the genesis of utilities beginning to argue the misguided notion that fixed costs should somehow be recovered from fixed charges. That is, such assertions or claims were a regulatory "innovation" by monopoly utilities appealing to their regulators, and were never made by utility rate design analysts until FERC Order 636 and the implementation of a SFV rate design. As a result of this misunderstanding of economics and public policy, some public utilities have argued for SFV residential pricing (or increased reliance on fixed charges), claiming a need for enhanced fixed charge revenues. To support their claim, the companies typically argue that because retail rates have been historically volumetric-based, there has been a disincentive for utilities to promote conservation or encourage reduced consumption. However, FERC's objective in adopting SFV pricing suggests the exact

[5] Federal Energy Regulatory Commission, Docket Nos. RM91-11-001 and RM87-34-065, Order No. 636 (Apr. 9, 1992), p. 7.
[6] *Id.* at 8 (quoting S. Rep. No. 39, 101st Cong., 1st Sess., at p. 2).
[7] *Id.* at 128-29 (internal citations omitted).

opposite. The price signal that results from SFV pricing is meant to promote additional consumption, not reduce consumption. Thus, a rate structure that is heavily based on a fixed monthly customer charge sends an even stronger price signal to consumers to use more energy.

Q. AS A PUBLIC POLICY MATTER, WHAT IS THE MOST EFFECTIVE TOOL THAT REGULATORS HAVE TO PROMOTE COST EFFECTIVE CONSERVATION AND THE EFFICIENT UTILIZATION OF RESOURCES?

A. Unquestionably, one of the most important and effective tools that this, or any, regulatory commission has to promote conservation is developing rates that send proper price signals to conserve and use resources efficiently. A pricing structure that is largely fixed, such that customers' effective prices do not properly vary with consumption, promotes the inefficient utilization of resources. Pricing structures that are weighted heavily on fixed charges are much inferior from a conservation and efficiency standpoint to pricing structures that require consumers to incur more costs with more consumption.

Q. NOTWITHSTANDING THE EFFICIENCY REASONS AS TO WHY REGULATION SHOULD SERVE AS A SURROGATE FOR COMPETITION, ARE THERE OTHER RELEVANT ASPECTS TO THE PRICING STRUCTURES IN COMPETITIVE MARKETS *VIS A VIS* THOSE OF REGULATED UTILITIES?

A. Yes. In competitive markets, consumers, by definition, have the ability to choose between various suppliers of goods and services. Consumers and the market have a clear preference for volumetric pricing. Utility consumers are not so fortunate in that the local utility is a monopoly. The primary reason utilities are able to seek pricing structures with high fixed monthly charges is their monopoly status. In my opinion, this is a critical

consideration in establishing utility pricing structures. Competitive markets and American consumers have demanded volumetric-based prices for generations. A regulated utility's pricing structure should not be allowed to counter the collective wisdom of markets and consumers simply because of its market power.

Q. IN YOUR OPINION, SHOULD THE STRUCTURE OF WATER AND SEWER RATES BE BASED ENTIRELY ON VOLUMETRIC RATES?

A. No. Consistent with the volumetric pricing structures that predominate in competitive industries, as well as the accepted practice of regulators for generations, it is appropriate for water and sewer rates to include a relatively small fixed monthly customer charge. In this regard, fixed service charges should only reflect the direct costs to connect and maintain a customer's account. As such, fixed service charges should only reflect the costs of service lines, meters, meter reading, customer records and billing. Fixed service charges should not include an unreasonable litany of sunk short-run investments or overhead, as these are simply the cost of providing service to its customers and the cost of doing business.

Q. ON PAGE 5 OF HIS REBUTTAL TESTIMONY, WITNESS LOY CLAIMS THAT CONSERVATION AND EFFICIENCY EFFORTS HAVE REDUCED THE LEVEL OF CUSTOMERS' USAGE OF WATER AND SEWER SERVICES AND THAT THIS TREND SUPPORTS HIS ASSERTION THAT HIGHER FIXED MONTHLY CUSTOMER CHARGES ARE SUPPORTED. DO YOU HAVE A RESPONSE TO THIS ASSERTION?

A. Yes. There is no doubt that on a nationwide basis, consumers, are on average, using less water than they did several years ago due to conservation and efficiency improvements

in appliances. However, it must be remembered that this is a long-term trend. It takes a considerable amount of time (years) for consumers to materially change their demand for water and/or change the stock of appliances. Furthermore, KIU's customers have specific expectations of water usage for applications like lawn irrigation, as well as nationally recognized golf courses that require significant irrigation. As such, the demand for KIU's water and wastewater products and services cannot be directly correlated to the nationwide demand for water and wastewater service.

Q. ON THE TOPIC OF IRRIGATION, WITNESS LOY CLAIMS ON PAGE 5 OF HIS REBUTTAL TESTIMONY THAT KIU'S LARGE IRRIGATION BASE EXPOSES THE COMPANY TO RISK IN BOTH WET AND DRY YEARS. DO YOU HAVE A RESPONSE TO THIS ASSERTION OF WITNESS LOY?

A. Yes. In evaluating Witness Loy's assertion concerning the risk associated with wetter than normal and dryer than normal years, I investigated the history of precipitation levels in KIU's service area. KIU's significant irrigation season is May through September. As shown in my Surrebuttal Exhibit GAW-1, the average precipitation during the months of May through September in the Charleston, South Carolina area is 29.10 inches.[8] This compares to the Company's Test Year precipitation during these same months of 28.50 inches which is slightly less than the average. Although the Company did not conduct a weather normalization adjustment within its revenue requirement and rate design, it is apparent that the Test Year precipitation during the predominating irrigation months is very close to the 20-year average for these same months and in fact, is slightly less than the average. As a result, and while there are variations in precipitation from year-

[8] Per National Weather Service and Surrebuttal Exhibit GAW-1.

to-year, it is apparent that the precipitation that occurred during the Test Year is reasonably close to normal such that any risk to the Company due to drought are mitigated within KIU's rate Application.

Q. ON PAGES 7 THROUGH 9 OF HIS REBUTTAL TESTIMONY, WITNESS LOY STATES THAT THE DIRECT CUSTOMER COST METHODOLOGY IS NOT RELIABLE FOR RATEMAKING PURPOSES. PLEASE RESPOND TO WITNESS LOY'S ASSERTIONS IN THIS REGARD.

A. Witness Loy's criticisms of my direct customer cost analysis are moot and frankly, academic. While he may disagree with my direct customer cost analysis in which I calculated direct customer costs of $3.73 per month for a 5/8" metered customer, I also conducted analyses that included each and every cost Witness Loy classified as "customer-related" within his CCOSS. This analysis resulted in a "customer" cost of $6.02 per month. These costs pale in comparison to the Company's current fixed monthly customer charge for a 5/8" metered customer of $36.65. In short, Witness Loy's argument is not relevant to the issue of whether any increase to fixed monthly customer charges should be considered.

Q. ON PAGE 9 OF HIS REBUTTAL TESTIMONY, WITNESS LOY OPINES THAT ORS'S APPROACH TO APPLYING THE ENTIRE INCREASE TO VOLUMETRIC RATES IS UNREASONABLE AND WILL UNDULY BURDEN CUSTOMERS WITH HIGHER USAGE. PLEASE RESPOND TO THIS ASSERTION.

A. In direct response to Witness Loy's assertion that my rate design recommendation will unduly burden customers with higher usage, please refer to my Exhibit GAW-12

provided in my Direct Testimony. As indicated in this Exhibit, a residential customer using 11,000 gallons per month (which is about the average usage) will see a 3.43% increase in their water bill while a consumer using as much as 100,000 gallons per month will see a 5.45% increase. In addition, virtually all residential water customers are also sewer customers of KIU. ORS recommends no increase in KIU's sewer rates such that under my recommended rate design, a residential customer's total water plus sewer bill with consumption of 11,000 gallons per month will see a total increase of 2.45% while a customer using 100,000 will incur a 5.16% increase in their total water plus sewer bill.[9]

In addition, my direct and surrebuttal testimonies are complete with respect to why it is appropriate not to increase the Company's fixed monthly customer charges. Indeed, there is no doubt that the Company's current fixed monthly customer charges exceed a reasonable level of such fixed charges based on reasonable cost apportionment. Witness Loy sets forth no credible evidence supporting his assertion that his proposed 15% increases to fixed charges are reasonable, cost-based, or appropriate from a public policy perspective.

Q. DOES THIS COMPLETE YOUR SURREBUTTAL TESTIMONY?

A. Yes.

[9] A customer's total water plus sewer bill that uses 11,000 gallons per month is currently $125.92 that will increase to $129.00. A customer's total water plus sewer bill that uses 100,000 gallons per month is currently $683.66 that will increase to $718.96.

Monthly Total Precipitation for Charleston Area, SC

Year	May	Jun	Jul	Aug	Sep	May - Sept
2011	0.41	4.37	6.94	7.95	3.60	23.27
2012	3.06	9.79	4.78	7.76	2.02	27.41
2013	2.99	13.32	5.35	3.95	5.01	30.62
2014	1.49	3.59	7.41	7.08	8.66	28.23
2015	1.36	7.69	7.72	11.22	2.69	30.68
2016	6.66	3.14	4.38	3.72	12.27	30.17
2017	3.74	6.47	8.64	8.17	6.75	33.77
2018	10.62	4.21	8.95	3.93	1.96	29.67
2019	1.64	7.44	9.44	5.31	6.15	29.98
2020	3.64	5.20	2.47	10.05	7.14	28.50
20-Yr. Average	3.36	6.22	6.82	7.37	5.33	29.10

2020 Pct. Deviation from Mean -2%

Source: National Weather Service, NOAA Online Weather Data.